

TWO NEW ANTS FROM WESTERN NEVADA
(Hymenoptera, Formicidae)

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Since the ant fauna of Nevada is virtually unknown the two new species described herein are of more than ordinary interest. Both were sent me by Dr. Ira La Rivers of the University of Nevada who collected them in the general region of Pyramid Lake, Washoe County, Nevada. One is a very distinct form of honey ant (*Myrmecocystus*) which I have named *pyramicus* because of the pyramid-like structure of the epinotum. The other is a harvesting ant (*Veromessor*) which, though related to *pergandei* (Mayr), is definitely different. This new form has been named *lariversi* in honor of its collector. Illustrations of *Myrmecocystus pyramicus* are included.

MYRMECOCYSTUS PYRAMICUS SMITH, new species

(Figs. 1, 2, 3,)

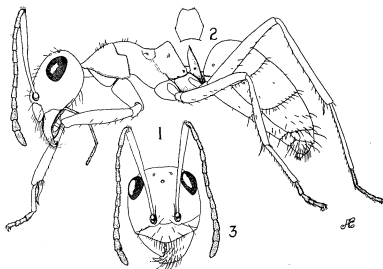
WORKER—Length 4.8 mm.

Mandible 8-toothed, the largest of the teeth being the first, second, fourth, sixth and last. Compound eye as in the *mexicanus* group: Large, protuberant, and with many facets, placed very close to the posterior corner of the head, its greatest diameter approximately one and one-half times the length of the first funicular segment. Ocelli extremely small. In profile, the pronotum and much of the mesonotum rather evenly and strongly convex, the posterior fourth to the posterior third of the mesonotum distinctly impressed; base of epinotum sharply ascending from meso-epinotal suture to meet the flat, declivous surface of the epinotum in a rather broad, bluntly rounded angle or "pyramid-like" structure; declivous surface approximately twice the length of the basal surface. In profile, the petiole high (higher than the epinotal spiracle), with a weakly convex anterior surface and a flat posterior surface, the two surfaces meeting above to form a strongly compressed (anteroposteriorly), sharp superior border; viewed posteriorly the petiole with dorsally converging sides and the superior border with a distinct emargination.

Dorsal and anterior surface of head and mandibles bearing a number of long, erect hairs, those on the anterior border of the clypeus unusually long. Lower surface of head with ammochaetae and

lower surface of mandible with long hairs. Thorax almost destitute of erect hairs except for a small number (usually about six) on the pronotum and a smaller number on the mesonotum. Petiole also practically devoid of hairs, occasionally an erect hair or two on the superior border. Coxa with erect hairs; erect hairs also on the flexor surfaces of the femur, tibia and tarsus. Posterior border of each of the gastric segments with a row of hairs; also a number of short, sparse, erect hairs elsewhere on the gastric segments; apex and ventral surface of gaster with longer and more numerous hairs. Pubescence sparse, fine, closely appressed, not obscuring the ground surface, thickest and most apparent of the gaster.

Body usually subopaque in general appearance, but in some lights certain parts are shining, this being especially true of the dorsal surface of the head. Color a sordid light or yellowish brown with the thorax and antennae lighter than the head and gaster.



(Figs. 1, 2, 3)

Myrmecocystus pyramicus, new species. Fig. 1. Profile of worker. Fig. 2. Posterior view of petiole. Fig. 3. Anterior view of head. (Illustrations by Miss Addie Egbert.)

TYPE LOCALITY: Nevada Dominion Mine, Pymarid Mining District, five miles west of Mullen Gap (Pyramid Lake), north end of Pah Rah Mountains (Nevada Highway 33), Washoe County, Nevada. The ants were collected by Ira La Rivers on April 7, 1951, from a colony in a small, open mound nest in a sand clearing of *Artemisia tridentata*, where the females and males were beginning to swarm near sundown.

Described from a holotype and 37 paratype workers. The holotype and 25 paratype workers have been placed in the collection of the United States National Museum under U. S. N. M. No. 61265. The remaining paratypes are in the collection of Dr. La Rivers. The five male and ten females have not been described as they do not offer good characters for recognition.

The paratypes vary especially in size, pilosity, and extent of the development of the "pyramid-like" structure of the epinotum. The range in size of this form cannot yet be positively stated on the basis of the few specimens examined. It is thought, however, to approach that of *navajo* Whlbr., the major worker of which is almost 5 mm. in length. The range in length of my *pyramicus* series is approximately 3 to 5 mm. The pilosity of the thorax and petiole may vary from almost no erect hairs to a few as stated in the above description.

This new form belongs to the *mexicanus* complex as evidenced by the large eyes and their placement, by the small ocelli, and by the light to yellowish brown color of the body. In Creighton's 1950 publication, *Ants of North America* (Harvard Univ., Mus. Comp. Zool. Bul. 104:441) this ant keys to couplet four which includes *navajo* and *mojave*. Specimens have been carefully compared with cotypes of both these forms. From *navajo*, to which it is apparently most closely related, *pyramicus* can be distinguished by the dentition of the mandibles, pilosity of the body, and the shape of the epinotum and petiole. *M. pyramicus* has eight instead of nine teeth on the mandibles, and a pyramidshaped instead of a convex epinotum. The scape is free of erect hairs and the thorax and petiole are also either free of erect hairs or only have a very few, whereas in *navajo* there are numerous erect hairs on both the scape and thorax. The petiole of *pyramicus* is strongly compressed anteroposteriorly and the superior border is sharp and usually has a distinct emargination. *Navajo* has a rather thick petiole (anteroposteriorly) and the superior border is thick and blunt. *M. pyramicus* seems to be one of the most easily recognized forms of this genus in North America.

The shape of the epinotum readily distinguishes it from any other form, but to supplement this there are other good characters, such as color, pilosity, dentition of the mandibles, size and placement of the eyes, and shape of the petiole.

Apparently *pyramicus* is a nocturnal ant which lives in very arid regions. Its food is most likely honeydew and the flesh of small arthropods. No repletes are yet known.

VEROMESSOR LARIVERSI SMITH, new species

WORKER—Length 5 mm.

Head, exclusive of the mandibles, subrectangular, with a weakly convex, almost straight posterior border. Antenna 12-segmented; scape slender, curved at base, enlarged apically, the apex clearly surpassing the posterior border of the head; base of the scape lacking a lobe or other enlargement as in some species of *Veromessor*; funiculus enlarged apically but not forming a clearly-defined club. Eye large, convex, strongly protuberant, placed approximately its greatest diameter from the base of the mandible, without the sharp antero-ventral angle of *pergandei*. Clypeus convex, lacking the median tooth on the anterior border as in *pergandei*. Mandible large, subtriangular, with two large apical and five or six somewhat less distinct teeth. Thorax, in profile, with a strongly convex promesonotum. Approximately the posterior half of the mesonotum with a distinct impression which is clearly longer than deep. Meso-epinotal constriction well defined. Epinotal spine subtriangular, short, acutely pointed, much less than half the length of the basal surface of the epinotum. Legs rather long and slender, without noticeably incrassated femora and tibiae. The distinctly concave anterior surface of the petiolar node meeting the posterior surface of the node in a bluntly rounded angle; antero-ventral surface of the petiole with a very poorly defined, vestigial tooth. Petiole viewed anteriorly somewhat violin-shaped. Postpetiole, from above, subcampanulate, broadest posteriorly. Gaster, viewed dorsally, oval, without apparent humeral angles.

Frontal region of head with fine, longitudinal striae or rugulae. Cheeks with coarse, longitudinal rugulae, those around the antennal foveae more or less concentric. Remainder of head with an obscure, delicate shagreening. Punctures on head sparser and less visible than in *pergandei*. Pronotum with transverse rugulae in addition to the shagreening. Mesopleuron and side of epinotum rugulose-

punctate. Petiole and postpetiole delicately shagreened.

Ventral surface of each side of head and also ventral side of each mandible with remarkably long ammochaetae as in *pergandei*. Anterior border of clypeus with a row of long, curved hairs. Dorsal surface of body with rather numerous, erect, yellowish hairs of variable length, many of these unusually long. Hairs on antennal scape short, somewhat appressed.

Head, thorax, petiole and postpetiole brown, gaster darker; eyes and mandibular teeth black.

TYPE LOCALITY: Nevada Dominion Mine, Pyramid Mining District, Mullen Gap (five miles west of Pyramid Lake), Washoe County, Nevada, May 8, 1951, nesting in sand, Ira La Rivers.

Described from a holotype and 38 paratype workers. The holotype and 25 paratypes have been placed in the collection of the United States National Museum under U. S. N. M. No. 65266. The remaining paratypes have been returned to Dr. La Rivers.

Paratypes vary in size and color. The range in length is from 3.8 to 5.2 mm. The color of some specimens, especially of the smallest workers (which may be callows), is light brown. A small infuscated spot is present on the vertex of some individuals and absent on the vertex of others.

This new form has been carefully compared with types of all other North American *Veromessor*. In the Wheeler and Creighton key to *Veromessor* (1934, Proc. Amer. Acad. Arts and Sci. 69:361) it keys to couplet three and in Creighton's North American Ants (l.c., page 158) it keys to couplet two. In each case the couplet includes the same forms, *pergandei* and *stoddardi*. *V. lariversi* is more closely related to *pergandei* than to any other of our *Veromessor*. It differs especially from that species in the more convex and protuberant eye (which lacks the distinct antero-ventral angle of *pergandei*), the absence of a tooth-like process on the middle of the anterior border of the clypeus, the longer and more slender antennal scape (the scape of *pergandei* fails to attain the posterior border of the head in some individuals and does not surpass it in others), the coarser sculpture, different color (piceous brown to jet black in *pergandei* and the longer and more slender, subcampanulate postpetiole.

Although little is known about the biology of *lariversi* it is assumed that because of close resemblance of the species to *pergandei*,

this new form will also be found capable of living in very arid areas of high temperature. No doubt, it too feeds largely on seeds. Besides *lariversi*, *andrei* (Mayr) is the only other *Veromessor* that has been reported from Nevada.